

International Review of the Cooling and Ventilation Systems Design for HL-LHC



Report of Contributions

Contribution ID: **1**

Type: **not specified**

HL-LHC Project Introduction

Presenter: TAVIAN, Laurent Jean (CERN)

Session Classification: HL-LHC Project Introduction (20'+5')

Contribution ID: 2

Type: **not specified**

HL-LHC Project Introduction (20'+5')

Tuesday 14 March 2017 09:00 (25 minutes)

☒ Introduction to the HL-LHC project

Presenter: TAVIAN, Laurent Jean (CERN)

Contribution ID: 3

Type: **not specified**

Introduction (30'+10')

Tuesday 14 March 2017 09:25 (40 minutes)

- ☒ Scope of the HL-LHC CV Review
- ☒ New HL Infrastructure
- ☒ Cooling Requirements
- ☒ General Planning of the Project
- ☒ Main Design Assumptions & Criteria
- ☒ Introduction to C & V Presentations

Presenter: BATTISTIN, Michele (CERN)

Contribution ID: 4

Type: **not specified**

Ventilation (90' + 10')

Tuesday 14 March 2017 10:30 (1h 40m)

USER REQUIREMENTS

- Technical requirements
- Safety requirements

DESIGN CRITERIA

- Surface buildings:
 - Thermal study
 - Reference values
 - Summer thermal balance
 - Winter thermal balance
- Underground area:
 - Required indoor conditions
- Guidelines / constraints

TECHNICAL DESCRIPTION

- Systems overview
- Ventilation design for surface buildings
- Ventilation design for underground area
- Resulting AHU sizing and power balance

Presenter: PEPINSTER, Paul (CERN)

Contribution ID: 5

Type: **not specified**

Visit

Contribution ID: 6

Type: **not specified**

Cooling (30'+10')

Tuesday 14 March 2017 15:10 (40 minutes)

- ☒Cooling infrastructure Point 1 and 5
- ☒User Requirements
- ☒Design Criteria
- ☒Cooling overview schematic
- ☒SFx7 Primary water station
- ☒SUx7 Chiller water station
- ☒UWx7 Underground cooling station
- ☒Central heating Point 1

Presenter: BROCHE, Alexandre Joel (CERN)

Contribution ID: 7

Type: **not specified**

Integration (15'+5')

Tuesday 14 March 2017 16:20 (20 minutes)

☒ Advancement status of the integration of Cooling and Ventilation systems.

Presenter: BORRALHO, Frederic (CERN)

Contribution ID: 8

Type: **not specified**

Resources & First Draft of Detailed (20' + 10')

Tuesday 14 March 2017 16:40 (30 minutes)

☒ CV Resources;

☒ First Draft of Planning.

Presenter: BATTISTIN, Michele (CERN)